

Remarks:

This amendment is submitted in an earnest effort to advance this case to issue without delay.

The specification has been amended to eliminate some minor obvious errors. No new matter whatsoever has been added.

The claims address the new rejection on US 6,459,936 of Fischell. This reference teaches the use of a plurality of electrodes for brain stimulation (cf. column 22, lines 15 to 63). The electrodes are placed at different locations in close proximity to the brain or within the brain (cf. column 8, lines 36 to 41). The stimulation signals sent to each electrode may differ in amplitude, frequency, waveform, phase and time duration (cf. column 3, lines 8 to 11). Furthermore, the stimulation signals generated by different electrodes may have a relative time delay with respect to each other (cf. column 22, lines 29 to 32). The purpose of this time delay is that the stimulation signals reach the neurological focus in the brain at the same time (cf. column 22, lines 34 to 38):

"It may be desirable that the delays be adjusted so that the stimulation signals 412A through 412N from the signal generators 422A

through 422N reach the neurological event focus in the brain at the same time and in-phase."

The time delays according to Fischell are necessary because the stimulation electrodes are all located at different places, some of them are even placed outside the brain. Thus the stimulation signal emitted by each electrode needs a certain time to propagate to the neurological focus. This means that the time delay of each stimulation signal must be adjusted such that all stimulation signals arrive at the neurological focus at the same time.

In contrast to Fischell, the electrodes of claim 78 do not stimulate the same neurological focus but are coupled to or stimulate different subpopulations of neurons. Furthermore, the stimulation signals do not arrive at the stimulation sites concurrently, but instead the stimulation bursts stimulate the different subpopulations at different times. Since the inventive stimulation signals cause a reset of the stimulated subpopulations, each subpopulation is reset at a different point in time. Fischell is silent on resetting neurons and in particular on resetting different neuron subpopulations at different times.

US 7,174,213 of Pless teaches the use of multiple electrodes for brain stimulation (cf. column 18, lines 46 to 58). According to Pless bursts having different signal parameters may be delivered from the multiple electrodes. For example, different pulse-to-pulse timings may be used. However, it is to be noted

that the different pulse-to-pulse timings are related to the pulses within the same burst as shown in FIGS. 6 to 11. Pless does disclose the administration of bursts of pulses via different electrodes, where entire bursts are time shifted to each other. Furthermore, all stimulation signals emitted by the multiple electrodes of Pless are sought to stimulate the epileptogenic focus (cf. column 18, lines 52 to 54). By contrast, the electrodes according to the invention stimulate different spots in the brain where the subpopulations are located.

The inventive stimulation signals administered to the neurons are capable of resetting the firing of these stimulated neurons. Pless is silent on resetting neurons and in particular on resetting different neuron subpopulations at different times.

Thus the new claims clearly define over the art under §102 and §103. Allowance of all claims and passage to issue are in order.

If only minor problems that could be corrected by means of a telephone conference stand in the way of allowance of this

case, the examiner is invited to call the undersigned to make the necessary corrections.

K.F. Ross P.C.

/Andrew Wilford/

by: Andrew Wilford, 26,597
Attorney for Applicant

05 January 2009
5683 Riverdale Avenue Box 900
Bronx, NY 10471-0900
Cust. No.: 535
Tel: 718 884-6600
Fax: 718 601-1099
Email: email@kfrpc.com

Enclosure: Extension (one month)